

OBSERVATIONS ON THE BIOLOGY OF SOME  
MUTILLID WASPS (HYMENOPTERA,  
MUTILLIDAE).

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*Dasymutilla obscura* (Bl.)

On July 10, 1947, Mr. Richard Boettcher, of Washington, remarked that while collecting wasps in Rock Creek Park, D. C., he had noticed a colony of *Cerceris clypeata* Dahlb. (Hymenoptera, Sphecidae) which not only displayed *clypeata* engaged in their nesting activities, but also numerous mutillid wasps which were decidedly interested in burrows of the former species. He noted that a female mutillid entered one of the *clypeata* nests, and also observed two female mutillids fighting outside the entrance to another nest. I accompanied Mr. Boettcher to the location on the morning of July 11. Immediately three mutillids, definitely *Dasymutilla obscura*, were seen walking on the ground among open *clypeata* burrows. The mutillids did not run hurriedly over the ground in their customary manner, but held their abdomens high, and slowly patrolled the area, constantly making the squeaking noise often described.

A *C. clypeata* returned to her nest. She seemed reluctant to enter it for some reason, and indeed, a female *D. obscura* was watching her from under a leaf only a few inches away. This reluctance appeared to be universal, but the larger *clypeata* never attempted to drive the mutillids away. Later, an *obscura* entered one of the burrows, then removed and scattered some of the dirt piled up around the entrance by *clypeata*. All these activities continued until dusk, about 7:30 P.M., E.S.T. By 7:45, no mutillids were active, although a few *clypeata* were present. It was not then apparent whether the mutillids spent the night in *clypeata* burrows, but this would be suggested by later observations.

At 7:30 the next morning, many *clypeata* were about and active. The first mutillid suddenly appeared at 7:50, and before 8:00 two more had arisen from burrows in the ground. Whether these burrows were originally *clypeata* burrows is questionable, since none of them contained weevils (as did all those definitely *clypeata*), and both of these mutillids were caked with dirt, indicating probably that they had been digging considerably.

These observations were verified repeatedly during July. We were unable, however, in reaching to definite proof that *Dasymutilla obscura* lives at the expense of *clypeata*. Nevertheless, regardless of

their absolute conclusiveness alone, these observations are at least very suggestive of such activity, and any other explanation seems unreasonable.

*Dasymutilla lepeletierri* (Fox)

Both males and females of this species (kindly determined by Dr. K. V. Krombein) were very numerous in a sandy area near Odenton, Anne Arundel County, Maryland, on July 26, 1947. At about 3:00 P.M. a pair was taken in copula. Apparently it has not previously been taken mating.

*Dasymutilla nigripes* (Fab.)

Two mating pairs of this species were taken during July, 1947, by Mr. Boettcher. In July, 1946, I observed another pair which remained in copula for less than ten seconds.

*Timulla vagans* (Fab.)

*Timulla* seems to be the genus of Mutillidae which most frequently is encountered mating. Possible explanation for this lies in the fact that the wasps of this genus remain in copula for a longer period than other mutillids.

On July 29, 1947, in watching a female *vagans* climb a steep bank, a male of the same species was seen to dart down from a height of several feet upon her. He had no difficulty in finding her. They remained in copula for several minutes, surprising when compared with the mating times for other genera. *Pseudomethoca simillima* and *P. frigida*<sup>1</sup> remained together for only about fifteen seconds.

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**Note on a Geographical Name**—From Arizona, many collectors have received specimens from Mount (or Mt.) Lemmon, Santa (or Sta.) Catalina Mountains (or Mts.). The correct spelling of the name is as above, since it is a surname, bearing no relation to *lemon*, the well-known acid fruit. J. R. DE LA TORRE-BUENO, Tucson, Arizona.

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<sup>1</sup> See *Scientific Monthly*, XLIV, No. 4, Apr. 1947, pp. 348-50. The *Dasymutilla nigripes* referred to above also remained together for a very short period. And another species of *Dasymutilla*, this unidentified, remained together about thirty seconds.